RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

SR1020K THRU SR10200K

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 200 Volts CURRENT 10.0 Amperes

FEATURES

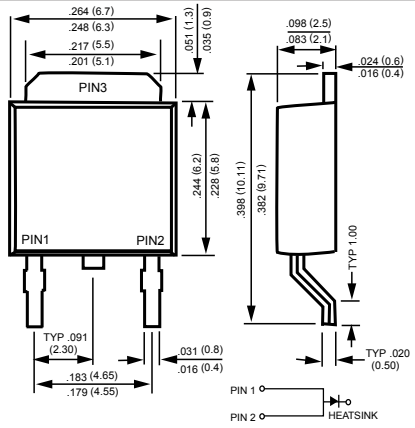
* High reliability
* Low switching loss
* Low forward voltage drop
* High current capability
* High switching capability

MECHANICAL DATA

* Epoxy: Device has UL flammability classification 94V-O
* Case: Molded plastic
* Lead: MIL-STD-202E method 208C guaranteed
* Mounting: position: Any
* Weight: 0.33 grams



D-PAK



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	SR1020K	SR1030K	SR1035K	SR1040K	SR1045K	SR1050K	SR1060K	SR1080K	SR10100K	SR10150K	SR10200K	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	35	40	45	50	60	80	100	150	200	Volts
Maximum RMS Voltage	V_{RMS}	14	21	25	28	32	35	42	56	70	105	140	Volts
Maximum DC Blocking Voltage	V_{DC}	20	30	35	40	45	50	60	80	100	150	200	Volts
Maximum Average Forward Rectified Current at Derating Case Temperature	I_O	10.0											Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150											Amps
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	2.0											°C/W
	$R_{\theta JA}$	60											
Typical Junction Capacitance (Note 2)	C_J	700					450						pF
Operating Temperature Range	T_J	150											°C
Storage Temperature Range	T_{STG}	-55 to + 150											°C

ELECTRICAL CHARACTERISTICS(@TA=25 °C unless otherwise noted)

CHARACTERISTICS		SYMBOL	SR1020K	SR1030K	SR1035K	SR1040K	SR1045K	SR1050K	SR1060K	SR1080K	SR10100K	SR10150K	SR10200K	UNITS
Maximum Instantaneous Forward Voltage at 10.0A DC		V_F	.65					.75		.85				Volts
Maximum Average Reverse Current	@T_A = 25°C	I_R	0.2											mA
at Rated DC Blocking Voltage	@T_A = 100°C		2											mA

NOTES : 1. Thermal Resistance : Heat-sink case mounted or if PCB mounted.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".
4. Suffix "R" for Reverse Polarity.
5. Suffix "S" for D2-PAK Pkg.

2006-12

RATING AND CHARACTERISTICS CURVES (SR1020K THRU SR10200K)

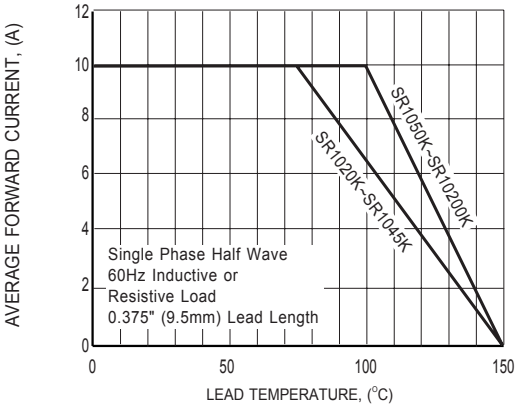


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

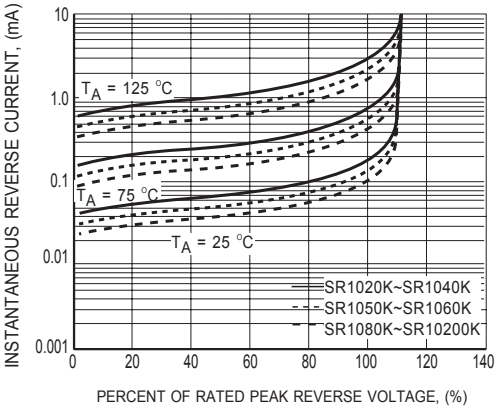


FIG.2 TYPICAL REVERSE CHARACTERISTICS

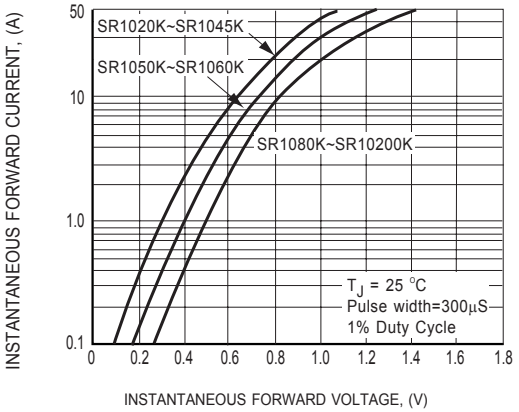


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

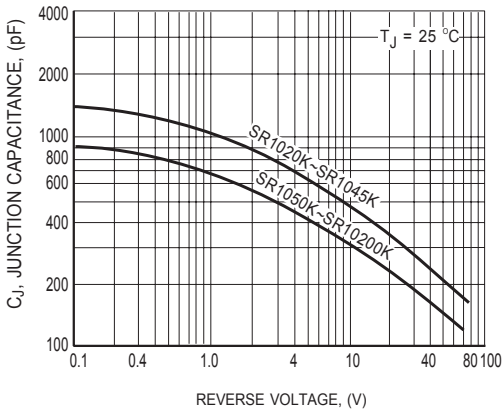


FIG.4 TYPICAL JUNCTION CAPACITANCE

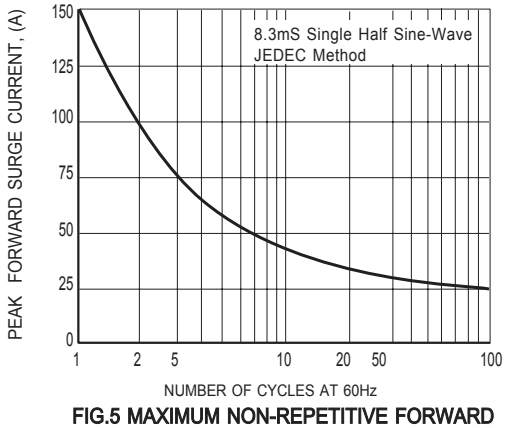


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

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